

REMARKS

Claims 1, 3 and 8 thru 10 are being amended, and claims 26 thru 41 are being added. Thus, claims 1 through 41 are pending in the application.

Via telephone call made on 4 January 2007, the Examiner required a restriction under 35 U.S.C. §121 and 37 CFR §1.142, between:

- **Group I** covered by claims 1-9 and 14-21, classified in class 708 at subclass 270, covering the approximation method and system; and
- **Group II** covered by claims 10-13 and 22-25 classified in class 375 at subclass 260, directed to the method of compensating a carrier frequency offset.

Applicants also respectfully traverse the election requirement, but provisionally elect Group II covered by claims 10-13 and 22-25 classified in class 375 at subclass 260, directed to the method of compensating a carrier frequency offset. However, it is respectfully submitted that non-elected claims 1 thru 9 and 14 thru 21 should be considered and examined with elected claims 10 thru 13 and 22 thru 25 because: (1) the non-elected claims have been amended so that their preambles recite a method (claims 1, 3 and 8) and a system (claims 14 and 17) for compensating a carrier frequency offset in terms identical, or virtually identical, to elected claims 10 thru 13 and 22 thru 25; and (2) dependent linking claims 26 thru 45, dependent from the non-elected claims, have been added, and these linking claims contain subject matter identical to subject matter recited in the elected claims, so that examination thereof will not impose an undue burden on the Examiner.

Applicant also objects to and traverses the restriction requirement on the grounds that the classification is in error. In addition, the class 708, subclass 270 contains but one hundred and thirty issued U.S. patents, and a corresponding number of foreign and literature references; this search is not burdensome. This demonstrates both the lack of burden upon the Examining staff in making a simultaneous search of both Groups I and II, and the absence of evidence that Groups I and II are distinct. Finally, it appears that the restriction requirement is being imposed merely for administrative convenience, and such a basis for imposition of a restriction requirement has been prohibited in previous decisions of the Commissioner. As specifically stated in MPEP §803, in imposing a restriction requirement, the Examiner must show that:

(A) the inventions are independent (*see* MPEP §802.01, §806.04, §808.01) or distinct as claimed (*see* MPEP §806.05 - §806.05(i)); **and**

(B) there will be a **serious burden** on the Examiner if the restriction requirement is not imposed (*see* MPEP §803.02, §806.04(a) - §806.04(i), §808.01(a), and §808.02).

It is respectfully submitted that there would **not be a serious burden** upon the Examiner in searching Groups I and II.

Firstly, the Examiner has failed to show any type of burden, much less a serious burden, in the absence of a restriction requirement. In particular, not only has the Examiner failed to show that the search would impose a burden, but also the Examiner has failed to show that any burden would rise to the level of a serious burden. As stipulated in MPEP §803, if the search can be made without serious burden, the Examiner **must examine the application on the merits**, even if there are

separate and distinct inventions. The Examiner has not alleged any serious burden, and thus the Examiner must examine the entire application. Moreover, because no burden was shown, if the restriction is not withdrawn in the next Office action, the restriction requirement cannot be made final according to MPEP §706.07.

Secondly, whereas the Examiner has stated that the invention of Group I, including claims 1-9 and 14-21, is classified in class 708 at subclass 270, covering the approximation method and system, and that Group II, including claims 10-13 and 22-25, is classified in class 375 at subclass 260, directed to the method of compensating a carrier frequency offset, it is submitted that, in order to perform a comprehensive search, the Examiner is going to be compelled to perform some searching in both classes 708 and 270. It is submitted that Applicants' foregoing listing of a search of the U.S. Patent Collection produced the above-repeated partial list of recent U.S. Patent publications and issued U.S. patents which are in fact classified in both class 708, subclass 270 and class 375, subclass 260. Thus, under long standing Office practice extending over approximately three decades, the fields of search are coextensive with respect to the two groups of claims, and therefore the restriction requirement serves no purpose other than to impose an undue burden and unnecessary expense upon the Applicants (*see* MPEP §802.01, §806.04, §808.01).

Thirdly, MPEP §806.03 states that:

“Where the claims of an application define the same essential characteristics of a *single* disclosed embodiment of an invention, restriction therebetween **should never be required**. This is because the claims are but different definitions of the same disclosed subject matter, varying in breadth or scope of definition” (emphasis supplied).

Why then has this prohibition been violated in the above-captioned application where a single embodiment has been disclosed? That fact that Applicants' claims are very broad in scope, and cover a plethora of implementations of the principles of Applicants' inventions, is not a basis for violating this prohibition against restriction. Withdrawal of this requirement is therefore respectfully urged.

For the above reasons, it is respectfully submitted that the restriction requirement is unnecessary, is not in accordance with the Rules of Practice or the *Manual of Patent Examining Procedure*, and constitutes the imposition of an undue burden and unfair expense upon the Applicants. Therefore, the restriction requirement should be withdrawn.

If the requirement for restriction is not withdrawn, then the Applicants reserve the right to file a Petition to the Commissioner because there is no *serious* burden upon the Examiner in searching the invention of Group I and Group II.

Finally, it should be noted that the claims define patentable subject matter under 35 U.S.C. §101 in that they do not merely claim a mathematical algorithm. Rather, the claims cover a method for compensating a carrier frequency offset in an orthogonal frequency division multiplexing system (claims 1 thru 13 and 26 thru 37), an approximation system for a series expansion of an input function with a finite number of terms N to minimize an approximation error (claims 14 thru 21 and 38-45), and an orthogonal frequency division multiplexing system for compensating a carrier frequency offset (claims 22 thru 25), each of which is patentable subject matter under 35 U.S.C.

§101.

In view of the foregoing demonstration of the impropriety of the restriction requirement, it is requested that the restriction requirement be withdrawn. It is further submitted that the application is in condition for examination on the merits, and early allowance is requested.

A fee of \$800.00 is incurred by the addition of sixteen (16) claims in excess of total claims of twenty-five (25). Applicants' check drawn to the order of Commissioner accompanies this Amendment. Should the check become lost, be deficient in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicants' undersigned attorney in the amount of such fees.

Respectfully submitted,



Robert E. Bushnell,
Attorney for the Applicant
Registration No.: 27,774

1522 "K" Street N.W., Suite 300
Washington, D.C. 20005
(202) 408.9040
FAX: 202.289.7100

Folio: P56978
Date: 1/12/07
I.D.: REB/JGS